

CLEAN VERSION OF THE AMENDED CLAIMS

Sub. B1.
1. (Amended) A metering valve comprising:
a valve body defining a metering chamber having an inlet and an outlet,
an inlet valve adapted to be reversibly actuatable from an open to a closed
position located at the inlet; and
an outlet valve adapted to be reversibly actuatable from a dispensing to a
non-dispensing position located at the outlet, wherein said outlet valve
includes an outlet valve seat adapted to be in biasable contact with an outlet
valve poppet.

2. (Amended) The metering valve according to claim 1, wherein said
inlet valve includes an inlet valve seat adapted to be in biasable contact with
an inlet valve poppet.

3. (Amended) The metering valve according to claim 1, wherein the
inlet valve is the closed position and the outlet valve is in the non-dispensing
position when the metering valve is at rest.

4. (Amended) The metering valve according to claim 1, wherein the
inlet valve and the outlet valve are adapted to be independently operable.

5. (Amended) The metering valve according to claim 2, wherein the
inlet and/or outlet valve poppet includes an incompressible material, and
wherein the inlet and/or outlet valve seat includes a compressible material.

6. (Amended) The metering valve according to claim 2, wherein the
inlet and/or outlet valve poppet includes a compressible material, and
wherein the inlet and/or outlet valve seat includes an incompressible
material.

7. (Amended) The metering valve according to claim 2, additionally comprising an inlet valve mover adapted to bias the inlet valve poppet.

8. (Amended) The metering valve according to claim 7, further comprising an outlet valve mover adapted to bias the outlet valve poppet, wherein said outlet valve mover and said inlet valve mover are adapted to be independently operable.

9. (Amended) The metering valve according to claim 8, wherein the inlet valve mover and/or the outlet valve mover is adapted to be mechanically actuable.

10. (Amended) The metering valve according to claim 8, wherein the inlet valve mover and/or the outlet valve mover is adapted to be electrically actuable.

11. (Amended) The metering valve according to claim 10, wherein the inlet valve mover and/or the outlet valve mover include a multi-component strip or wire which is adapted to be deformable in response to electrical current flow.

12. (Amended) The metering valve according to claim 11, wherein the multi-component strip or the multi-component wire include a plurality of layers, wherein individual layers of the plurality of layers comprise a metal, and wherein the individual metallic layers are comprised of different metals.

13. (Amended) The metering valve according to claim 12, wherein the inlet valve mover and/or the outlet valve mover include the multi-

component strip, and wherein the multi-component strip includes a bimetallic strip.

14. (Amended) The metering valve according to claim 13, wherein the multi component strip includes at least one piezoelectric or piezoresistive material.

15. (Amended) The metering valve according to claim 11, wherein the inlet valve mover and/or the outlet valve mover include the multi-component wire, and wherein the multi-component wire includes a nickel-titanium alloy material.

16. (Amended) The metering valve according to claim 8, wherein the inlet valve mover and/or the outlet valve mover is adapted to be magnetically actuable.

17. (Amended) The metering valve according to claim 16, wherein the inlet valve mover and/or the outlet valve mover includes a magnetic material or a magnetically inductive material.

18. (Amended) The metering valve according to claim 8, wherein the inlet valve mover and/or the outlet valve mover is adapted to be pneumatically actuable.

19. (Amended) The metering valve according to claim 8, wherein the inlet valve mover and/or the outlet valve mover is adapted to be hydraulically actuable.

20. (Amended) The metering valve according to claim 18, wherein the inlet valve mover and/or the outlet valve mover includes a fluid-filled bag or tube adapted to be capable of transferring hydraulic force.

21. (Amended) The metering valve according to claim 20, wherein the outlet valve poppet is in the form of a ball, a mushroom, a cone, a disc or a plug.

22. (Amended) The metering valve according to claim 20, wherein the inlet valve poppet is in the form of a ball, a mushroom, a cone, a disc or a plug.

23. (Amended) The metering valve according to claim 1, wherein said valve body additionally defines a sampling chamber, and wherein the inlet is adapted to permit flow from the sampling chamber to the metering chamber.

24. (Amended) The metering chamber according to claim 23, wherein the metering chamber is adapted to have a fixed volume.

25. (Amended) The metering valve according to claim 23, wherein the metering chamber is adapted to have a variable metering volume.
